

Biomarkers With Half-Life < 3 Days	Biomarkers With Half-Life > 3 Days
Acetonitrile	Hb Adducts of 3-aminobiphenyl?
Carboxy-hemoglobin	Hb Adducts of 4-aminobiphenyl
Carbon Monoxide	NNAL
Nicotine	NNAL-glucoronide
Cotinine	
t-3-Hydroxycotinine	
t-3-Hydroxycotinine glucoronide? >20h	
Half-lives for Nicotine N-glucoronide and Cotinine N-glucuronide are unknown (≤ 3 and > 3)	

		Life Of Biomarker of Exposure	
		< 3 Days	> 3 Days
Source	Variables	Weekly Analysis	Enrollment Analysis
Case Report Form	Age	Yes	Yes
	Body Mass Index	Yes	Yes
	Systolic Blood Pressure	Yes	Yes
	Diastolic Blood Pressure	Yes	Yes
	Pulse	Yes	Yes
	AST(SGOT)	No	Yes
	ALT (SGPT)	No	Yes
	HDL	Yes	Yes
	LDL	Yes	Yes
	Triglycerides	Yes	Yes
	CYP2A2 Phenotyping	No	Yes
	NAT2 Phenotyping	No	Yes
	Vitamin Use	Yes	Yes
	• Yes		
	• No		
	Concomitant Medications	Yes	Yes
	• Yes		
	• No		

		Life Of Biomarker of Exposure	
		< 3 Days	> 3 Days
Source	Variables	Weekly Analysis	Enrollment Analysis
Enrollment Questionnaire	Gender	Yes	Yes
	<ul style="list-style-type: none"> • <i>Male</i> • <i>Female</i> 		
	Spanish/Hispanic/Latino	Yes	Yes
	<ul style="list-style-type: none"> • <i>Yes</i> • <i>No</i> 		
	Race	Yes	Yes
	<ul style="list-style-type: none"> • <i>Asian</i> • <i>African American/Black</i> • <i>Caucasian -</i> • <i>Native American</i> • <i>Other</i> 		
	Marital Status		
	<ul style="list-style-type: none"> • <i>Married</i> • <i>Divorced</i> • <i>Widowed</i> • <i>Separated</i> • <i>Never Been Married</i> 	Yes	Yes

PM3003566592

		Life Of Biomarker of Exposure	
		< 3 Days	> 3 Days
Source	Variables	Weekly Analysis	Enrollment Analysis
Enrollment Questionnaire	Employment	Yes	Yes
	• <i>Employed</i>		
	• <i>Not Employed</i>		
	Exposure to Engine Exhaust	No	Yes
	• <i>Yes</i>		
	• <i>No</i>		
	Exposure to Chemicals	No	Yes
	• <i>Yes</i>		
	• <i>No</i>		
	Self Exposure (dose)	No	Yes
	Exposure SO (Spouse + Others)	No	Yes
	Exposure WVP (Workplace + Vehicles + Places)	No	Yes

		Life Of Biomarker of Exposure	
		< 3 Days	> 3 Days
Source	Variables	Weekly Analysis	Enrollment Analysis
Enrollment Questionnaire	Alcohol drinks	No	Yes
	<ul style="list-style-type: none"> • <i>Every Day</i> • <i>4 to 6 Times a Week</i> • <i>2 to 3 Times a Week</i> • <i>Once a Week</i> • <i>1 to 3 Times a Week</i> ^{Month} • <i>Less Than Once a Week</i> ^{Month} 	No	Yes
	Beer	No	Yes
	<ul style="list-style-type: none"> • <i>Percent of Beer</i> 	No	Yes
	Wine	No	Yes
	<ul style="list-style-type: none"> • <i>Percent of Wine</i> 	No	Yes
	Liquor	No	Yes
	<ul style="list-style-type: none"> • <i>Percent of Liquor</i> 	No	Yes

PM3003566594

		Life Of Biomarker of Exposure	
		< 3 Days	> Than 3 Days
Source	Variables	Weekly Analysis	Enrollment Analysis
Enrollment Questionnaire	Physical Activities	No	Yes
	<ul style="list-style-type: none"> • <i>Daily</i> • <i>3 to 5 Times a Week</i> • <i>1 to 2 Times a Week</i> • <i>Twice a Month</i> • <i>Rarely</i> • <i>Never</i> 		
	Length of Exercise	No	Yes
	<ul style="list-style-type: none"> • <i>Number of minutes</i> 		
	Intensity of Exercise	No	Yes
	<ul style="list-style-type: none"> • <i>Light</i> • <i>Moderate</i> • <i>Vigorous</i> 		
	Nutrition	No	Yes
	<ul style="list-style-type: none"> • <i>Total Number of Servings High in Cholesterol</i> 		

		Life Of Biomarker of Exposure	
		< 3 Days	> 3 Days
Source	Variables	Weekly Analysis	Enrollment Analysis
Weekly Survey	Self Exposure (dose)	Yes	No
	Exposure SO (Spouse + Others)	Yes	No
	Exposure WVP (Workplace + Vehicles + Places)	Yes	No